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June 2, 2021

Via ECF

Honorable P. Kevin Castel
Senior U.S. District Court Judge
Southern District of New York
500 Pearl Street
New York, New York 10007

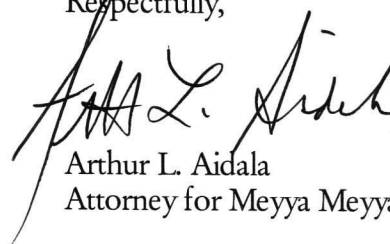
Re: United States v. Meyya Meyyappan
Crim. No. 21-CR-00022 (PKC)

Dear Judge Castel:

On January 13, 2021, my client, Meyya Meyyappan, plead guilty to a one count information charging him with making a False Statement to a Federal Agent (18 U.S.C. 1001). Mr. Meyyappan is scheduled to be sentenced on June 16, 2021, before Your Honor. Please consider the attached memorandum in imposing an appropriate sentence for Mr. Meyyappan.

Thank you for your time and consideration in this matter.

Respectfully,



Arthur L. Aidala
Attorney for Meyya Meyyappan

cc: AUSA Joshua Naftalis
Michelle Millan, USPO

I. PRELIMINARY STATEMENT

From the time he emigrated to this country from India as a young man, Meyya Meyyappan has lived a life marked by hard work, perseverance, and unfailing commitment to his field of study, his community, and his profession. Starting with limited means and working tirelessly to achieve success, Meyya has not only achieved incredible breakthroughs in his field, but he has long displayed uncommon kindness and generosity to those around him. The instant offense is, by any measure, a clear aberration in a life that epitomizes the American Dream – and one that Mr. Meyyappan deeply and sincerely regrets.

In light of Mr. Meyyappan's exceptional history and otherwise admirable and law-abiding life, as well as the cabined nature and circumstance of this offense, we respectfully ask the Court to consider to impose a sentence of time served, despite the Probation Department's recommendation of a two year term of probation. No term of incarceration here is necessary for deterrence purposes – particularly because, because of his conviction, Meyya has been compelled to step away from his position at NASA and removed from Federal Service, a job to which he has devoted his entire adult working life. In these circumstances, a sentence of time served rightly balances Mr. Meyyappan's misconduct against his extraordinary personal history and family circumstances.

II. SOCIAL HISTORY

I. Professional Career

A. Early Employment: Scientific Research Associates, Glastonbury, CT (1984-1996)

Meyya Meyyappan began his professional career at Scientific Research Associates, a company that was spawned from Pratt & Whitney. He started as a Research Scientist, and after four years in that position, was promoted to Senior Research Scientist. The company primarily did contract work for the Army, Navy, Air Force, NASA, and other agencies. Mr. Meyyappan's work and accomplishments at Scientific Research Associates afforded him visibility within these Agencies, and ultimately led him to his recruitment by NASA in 1996. Through his position at Scientific Research Associates, Mr. Meyyappan is thankful to have met his future wife.

B. NASA (1996-Present)

Meyya Meyyappan began working for NASA in 1996 and has continued to work there for the past twenty-five years. Though he has held numerous different job titles, his primary focus is creating and developing the field of nanotechnology. In fact, when Mr. Meyyappan first arrived at

NASA in Silicon Valley, there was no such thing as nanotechnology. Mr. Meyyappan is a true pioneer; his work includes manipulating matter at the nanometer scale to create useful products.

Mr. Meyyappan joined colleagues who worked at the U.S. National Science Foundation and the U.S. Naval Research Laboratory to pitch a new program on nanotechnology to the White House and Congress. After becoming one of the original members of the Interagency Working Group on Nanotechnology (IWGN) in 1997, the IWGN established the U.S. National Nanotechnology Initiative (NNI) through a series of fact-finding meetings with academia while engaging the White House, Senate, and House Science Committees. This two-year effort resulted in the approval of the new program on nanotechnology in 1999, and the NNI announcement by President Clinton was made in early 2000. As the only non-Washington “working bench-scientist,” Mr. Meyyappan was able to start the NASA Ames Center for Nanotechnology.

Working with a stable group of about seven to eight individuals, Mr. Meyyappan’s duties include guiding the group, providing technical vision, raising funds for research, and interpreting and disseminating law results to the world through publications and presentations. His work includes extensive research, all of which is published in the form of journal publications and presented at conferences.

Mr. Meyyappan has a myriad of accomplishments in the field. For example, Mr. Meyyappan developed a gas sensor that consumes little power, using highly sensitive nanomaterials. In 2009, a version of this sensor was the first ever nanotechnology product that was flown to outer space to be tested for crew cabin air quality monitoring in the International Space Station. Mr. Meyyappan also used his knowledge in nanotechnology to develop a biosensor that is used for disease diagnostics and water quality monitoring. Mr. Meyyappan has demonstrated applications of this biosensor to early diagnostics of heart disease. His team worked with the Mayo Clinic to show the utility of the biosensor electrode in deep brain stimulation, a procedure approved by the FDA for treating Parkinson’s disease. Additionally, Mr. Meyyappan brought back vacuum tubes made at the nanoscale that exhibit high speed and do not suffer from radiation strike, which is a common concern to NASA and the Military. Moreover, Mr. Meyyappan has made major contributions to printed memory devices, energy storage devices, and energy generation devices.

Due to his position as director of a leading nanotechnology center and his expansive technical knowledge in the field, he has been sought after by the public to educate them on nanotechnology. Nanotechnology is viewed as the technology of the twenty-first century; thus, lawmakers, the public, the press, and government organizations are all eager to learn more about it.

Mr. Meyyappan has done extensive briefing of numerous congressional members and other elected officials from the federal, state, and local governments. These briefs include House Speaker Newt Gingrich, Congressman Bob Walker from Pennsylvania, all Congressional Members from the Bay area, Secretary of State George Schulz, and Hollywood celebrities. Mr. Meyyappan received personal thank-you notes from many of them.

Throughout his career, Mr. Meyyappan has been prolific in publishing his findings. He has authored or coauthored 425 journal publications in reputable academic journals, in addition to seventeen articles in magazines. Mr. Meyyappan belongs to the top echelon of researchers. He has made 358 presentations in national and international conferences, 275 of which are Invited/Keynote/Plenary talks. Additionally, he has given 314 invited seminars at universities and 71 educational and business talks. These numbers place Mr. Meyyappan in the top-five speakers in the world. Mr. Meyyappan has issued twenty-seven patents, earning himself a place in the NASA Inventor Hall of Fame. He is also a Fellow of National Academy of Inventors.

Mr. Meyyappan is well-known in his community due to his technical excellence, sustained contributions, and public and professional service. His peers have recognized him generously over the years with numerous awards. Some of Mr. Meyyappan's noteworthy awards include a Presidential Award, Honorary Doctorates Degrees from the University of Witwatersrand in South Africa (the alma mater of Nelson Mandela), and Concordia University in Canada. Though less than one percent of the membership is recognized as a Fellow by any Society, Mr. Meyyappan was Elected a Fellow of eight different professional societies. He has received induction into the Silicon Valley Engineering Hall of Fame in 2009, alongside some very famous inductees including Apple Founders Steve Jobs and Steve Wozniak, Intel Founder Gordon Moore, and Founders of HP William Hewlett and David Packard.

C. Mentoring and Public Service

When Mr. Meyyappan arrived at NASA Ames Research Center twenty-five years ago, he realized that NASA, more than any other Agency or Institution, inspires young people to pursue science and engineering. After witnessing a steady stream of yellow school buses on the NASA campus, he became dedicated to providing education and training opportunities for young people. Mr. Meyyappan found a strong need to educate students at all levels, from high school to post-graduate. He met that need. Additionally, he devoted his efforts to providing opportunities to under-represented groups such as African Americans, Hispanic, and female students.

In the last twenty years, his efforts in nanotechnology education, training, and mentoring include creating internship opportunities for high school and undergraduate students at the Center for Nanotechnology at NASA Ames Research Center; mentoring faculty mentors from Historically Black Colleges and Universities; helping to create a Nanotechnology Technician Training Program at the San Bernardino Community College District in California; generating a nanotechnology website for high school students through the Institute of Electrical and Electronics Engineers; establishing one of the first courses on Introduction to Nanotechnology at Santa Clara University and providing the course material for free nationwide; providing short courses and tutorials on Nanotechnology as continuing education for professionals and newcomers; and starting and running a nanotechnology magazine for a wide audience.

i. Nanotechnology Internships and Outreach to High School Students

In 1997, Mr. Meyyappan created a high school student research program (HSRP) and an undergraduate student research program (USRP) in nanotechnology at the Center for Nanotechnology at NASA Ames Research Center. Both programs have had over 250 students each to date, including minorities. Every high school student that has participated has gone on to attend top tier schools, pursuing engineering or science degrees, and every undergraduate student who has participated has then attended graduate school. With Mr. Meyyappan's guidance, many of the students have achieved great success; for example, a student was invited to the White House Science Fair in 2014 and later received her degree at Cal Tech. Mr. Meyyappan spends his time imparting wisdom about good work practice, educating students on how to speak eloquently in public, and teaching strong writing skills. He continues to maintain correspondence with his interns even after their departure.

Mr. Meyyappan constantly gives talks to students at all levels. For instance, on November 30, 2006, he spoke to around 2,400 high school students and parents in a public forum in Portland, Oregon. He was told that it was the largest crowd the forum has ever seen because the students were eager to learn about nanotechnology from Mr. Meyyappan. Another example includes Mr. Meyyappan's video presentation to high school students across Tennessee on December 7, 2004, which was arranged by the University of Tennessee Chattanooga. He prides himself on his ability to educate and shape young people's views on new fields such as nanotechnology for the economic future of our country.

In addition, Mr. Meyyappan has made several trips to South Africa to promote Science, Technology, Engineering and Mathematics (STEM) education among poor black children. In April 2007 and July 2011, he spent a week each visiting high schools in black townships and speaking to students and teachers. He recalls an experience at an all-girls school where he was assigned to speak for merely twenty minutes, however, he wound up answering questions to the entire student body for over an hour. He describes this experience as extremely rewarding given their enthusiasm and willingness to learn.

ii. Nanotechnology Internships to Minorities

Mr. Meyyappan has made special efforts to recruit African American, Hispanic, and female students for HSRP and USRP internships. He visited several Historically Black Colleges and Universities in the Southeastern United States and institutions in Puerto Rico to give talks on nanotechnology, engage faculty in science and engineering departments to pursue research, and inform students about internship opportunities. In these activities, he worked with the National Association for Equal Opportunity and United Negro College Fund.

iii. Mentoring Minority Faculty

Over the years, Mr. Meyyappan has mentored several minority faculty members. Professor Fisayo Jejelowo, a female African American from the Biology Department of Texas Southern University in Houston, was mentored by Mr. Meyyappan on the nano aspects in nano-bio research. Since then, she successfully studied toxicological effects of various nanomaterials. Mr. Meyyappan helped the Texas Southern University, a Historically Black College and University, to establish a nanotechnology research and education effort. For this, he received a Certificate of Recognition from the Texas Southern University President in 2002. He also became a valuable mentor for Professor Uche Wejinya from the Department of Mechanical Engineering at the University of Arkansas, and high school teacher Ralph Alvarez.

iv. Nanotechnology Technician Training Program at the San Bernardino Community College District

San Bernardino Valley in Southern California is known as the Inland Empire which has a sizable Hispanic population and is relatively less affluent than all surrounding counties. Mr. Meyyappan worked with the Executive Director for Economic Development and Corporate

Training at the San Bernardino Community College District in 2007, when they requested his help to create a nanotechnology Technician Training program. Mr. Meyyappan helped to create the content of the training program. A series of trainings was offered and a total of about 140 individuals were afforded successful training.

Shortly thereafter, Mr. Meyyappan helped to submit a proposal to the U.S. Department of Labor for a community-based Job Training Grant; a \$2 million grant was awarded in January of 2009. The overall goal of this project was to provide a pipeline of trained workforce and bring about job development and opportunity creation in the region. Mr. Meyyappan worked diligently to create the content and develop courses. The specific objectives of the project were to: (1) create a California Nanotechnology Collaborative for the development and advancement of Nanotechnology Training at The Donald F. Averill Applied Technology Training Center; (2) train workers for entry-level jobs as technicians in nanotechnology-based industries; (3) develop a Center for the Advancement of Nanotechnology as a technical resource center for the 110 California community colleges in the State; (4) introduce participants to various career pathways at the two-year, four-year level opportunities in nanotechnology; and (5) promote Science, Technology, Engineering and Mathematics (STEM) and career pathways for middle and high school students.

Mr. Meyyappan served as the Chair of the Advisory Board and provided leadership for developing and structuring the training program including technical contents. With his help, the program was tremendously successful; a total of 465 attended the 90-hour Nanotechnology Technician's Training Program of which 376 completed and received their certificates.

v. Nanotechnology Website for High School Students

Immediately after he was elected as the President of the Institute of Electrical and Electronics Engineers (IEEE) and Nanotechnology Council (NTC) in 2006, Mr. Meyyappan submitted an Initiative Proposal to IEEE to create a nanotechnology website for the purpose of educating high school students. Mr. Meyyappan believed that although students can obtain information from the internet, IEEE, as the world's largest professional organization with over 400,000 members, would act as an authoritative source for the younger generation. Mr. Meyyappan raised \$150,000 towards this effort in 2007 from the IEEE Foundation, a valuation which was unprecedented. Additionally, he assembled a volunteer group to create the technical content and used the money he raised for the web developing services. Mr. Meyyappan made personal contributions of about 20% of the technical content on the website. Currently, the website has an average of 1,734 visitors per month.

vi. Nanotechnology Courses

Mr. Meyyappan has taught an Introduction to Nanotechnology course to undergraduate and masters students at Santa Clara University, a Jesuit school. His course was the first of its kind to be offered in the United States. After successfully administering the course in 2002, 2003, and 2004, Mr. Meyyappan's academic colleagues inquired about the academic material in hopes of teaching the same course at their respective Institutions. In response, Mr. Meyyappan spent a significant amount of his personal time editing over 400 viewgraphs in preparation to distribute the material to his colleagues. He generously shared this information to any professor who made a request.

In addition, the National Center for Learning and Teaching Nanotechnology at Northwestern University chose to make Mr. Meyyappan's material available through their outreach website. Statistics showed that in the first six months, 24% of the total downloads on the site was for Mr. Meyyappan's course material.

vii. Continuing Education

Mr. Meyyappan has spent considerable time on continuing education. He created a three-hour tutorial on carbon nanotube-based Nanotechnology which, over the past fifteen years, has been offered in several professional society meetings and has educated over 1000 attendees.

In addition, Mr. Meyyappan has produced a broader short course called "Nanotechnology for Aerospace" which was sponsored by NATO in 2005. This 1.5-day course was given in Monterey, CA; Montreal, Canada; Brussels, Belgium; and Ankara, Turkey. Based on its success, NATO sponsored it again in 2006 (breaking a NATO policy of not repeating a course) in Seattle, Montreal, Bordeaux (France) and Slovenia.

When nanotechnology emerged as a new field with economic potential in early 2000, the US Patent and Trademark Office and the examiners had very little or no knowledge of this field. Mr. Meyyappan was the first to give a detailed lecture on nanotechnology to the USPTO examiners and patent attorneys on November 19, 2003.

Lastly, in his outreach activities, Mr. Meyyappan has spent a considerable amount of time reaching out to young engineers. He has worked with numerous committees such as Graduates of the Last Decade and the American Institute of Chemical Engineers by presenting lectures and writing articles.

D. Professional Service

Throughout his career, Mr. Meyyappan has dedicated all of his non-work hours to volunteering activities and services. He has served on the Advisory Boards of countless universities throughout the country. Moreover, Mr. Meyyappan was the Founding Editor in Chief of an Elsevier Journal and a Journal from the Institute of Physics. He has also served on the Editorial Boards of numerous other journals. One of his primary duties included reviewing nearly 100 article submissions for over twenty different journals.

Mr. Meyyappan is a member of seven different Professional Societies: (1) Institute of Electrical and Electronics Engineers (IEEE); (2) American Institute of Chemical Engineers (AIChE); (3) American Institute of Mechanical Engineers (ASME); (4) Materials Research Society (MRS); (5) American Vacuum Society (AVS); (6) Electrochemical Society (ECS); and (7) Institute of Physics (IOP). He has done extensive volunteer work for each and every society, including organizing conferences, introducing new initiatives to benefit members, conducting webinars, and initiating new scholarships and awards for young students and practitioners.

E. Mentorship

Mr. Meyyappan has devoted his life to helping students, professionals, and colleagues all over the world. He draws enormous satisfaction and pride when others in his profession achieve recognition. In fact, Mr. Meyyappan routinely nominates his colleagues for awards. He believes that writing reference letters and supporting the nominations is a way of helping with the career growth of younger colleagues. He compares this to watching children grow up and succeed. Mr. Meyyappan has made many charitable contributions and has supported his alma matter, Clarkson University, through gifts for student scholarships.

III. NATURE OF OFFENSE

Mr. Meyyappan pled guilty to a one count information charging him with making a False Statement to a Federal Agent in violation of 18 USC §1001. He admitted that he lied to members of the FBI and NASA's Inspector General and did not disclose his teaching position as a visiting professor at a research university in China funded by the People's Republic of China. While there, he gave lectures, wrote research papers and received reimbursements. In addition, he admitted to being a participant in the Chinese Government's Thousand Talent Program which he also did not disclose. While there,

he had an office and an apartment and had a source of income that exceeded \$5,000.00 in gifts and travel reimbursement.

Although Mr. Meyyappan did not disclose the above information, it should be noted that every aspect of his work is transparent and was published in open literature (academic journals and conferences). He was not involved in any classified or sensitive operations and the work he did was available to anyone who researched the topics with which he was involved.

IV. SENTENCING CONSIDERATIONS

Under the Statutory Provisions, Mr. Meyyappan is eligible for probation supervision of no less than one year and no greater than three. The Sentencing Guidelines, based on a Total Offense Level of 4 and a Criminal History of I, produce a term of 0 to 6 months' incarceration. We respectfully recommend, again unequivocally and in the strongest terms, that the Court sentence Mr. Meyyappan to either time served or in the alternative to one year of probation, which is a term and with conditions that satisfy 18 U.S.C. § 3553(a)—a sentence that is “sufficient, but *not greater than necessary*” (emphasis added) to comply with the purposes set forth in 3553(a)(2). Incarceration in this instance exceeds what is necessary to satisfy those sentencing goals.

In detailing Mr. Meyyappan's history, personal and professional life, and the case facts as we understand them, the defense does not intend to minimize the offense. However, we firmly believe that his history of being an honest, well-respected, hardworking, and productive member of the community, as well as a crucial innovator in his field, further mitigate his actions. All of this certainly favors a non-incarceratory sentence. A review of the factors that the Court must consider under §3553(a), as described below, supports this view. The defense urges the Court to consider the following:

V. A SENTENCE OF TIME SERVED IS JUST AND APPROPRIATE

A. A Sentence of Time Served is Appropriate in Light of the § 3553(a) Factors

In the circumstances of this case, a sentence of time served is appropriate in light of the factors set forth in 18 U.S.C. § 3553(a), including Mr. Meyyappan's history and characteristics, the nature of characteristics of the offense, and lack of a need for deterrence.

As to Mr. Meyyappan's exceptional history and characteristics, he has lived a life of tremendous dedication to his career, and to his profession. Mr. Meyyappan has been incredibly generous with his time, as he has dedicated himself to helping students, professionals, and colleagues all over the world, for decades. (See, Letters Submitted on behalf of Meyya Meyyappan, Attached as Exhibit A). Having immigrated to the United States from India with very little and labored indefatigably to achieve great success, Mr. Meyyappan has shown a remarkable commitment to using his resources and talents to improve the lives of those around him, and to teach and help others in his field achieve recognition. He is widely admired and respected all over the world for his technical excellence, sustained contributions, and public and professional service. The Probation Department recommends a two-year period of probation which ordinarily would be reasonable. Here Mr. Meyyappan is contrite and will have to live not only with this conviction, but also with the attendant consequences for the rest of his life. He is not in need of supervision. His position that he loved at NASA has been lost, and clearly, he will not reoffend.

B. Collateral Consequences and Non-Judicial Punishment.

Finally, there can be no serious dispute that there is no need for further deterrence in this case. As a result of his conviction, Mr. Meyyappan has lost his role in NASA and in an industry where he had spent decades building from the ground up, and to which he devoted his life's work. This loss has been, for Mr. Meyyappan, incredibly painful – and has put into serious jeopardy his reputation in the industry and his ability to earn a livelihood in the future. In short, there is no doubt that Mr. Meyyappan will never commit another crime. The non-judicial punishments that have already accrued upon Mr. Meyyappan are substantial. Not only must he face potential incarceration, supervision and restitution, but he has been forced to resign from his position at NASA. The job he loved, the profession he was dedicated to, and the reputation for innovation and excellence that he built, all cease to exist. This, more than anything, is a much more severe sentence than any period of incarceration. The magnitude of this loss cannot be calculated. It does not fit into a guideline.

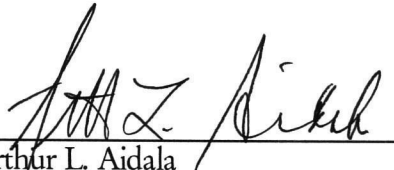
A just punishment in this case should be evaluated in the context of the extent of self-inflicted ruination that Mr. Meyyappan has already suffered because of his conduct and prosecution. While these costs are not a complete substitute for judicial punishment, they are critically important to assessing what further punishment should be necessary. Because these consequences satisfy most of the purposes of punishment, they are grounds for a below-guideline sentence.

VI. CONCLUSION

For the foregoing reasons, we respectfully ask the Court to impose a sentence of time served or in the alternative, a sentence of one year probation. Mr. Meyyappan's conduct here is undoubtedly serious, and Mr. Meyyappan in no way seeks to minimize his actions. This conduct, however, must be viewed in the context not only of certain facts surrounding the offense, but also of Mr. Meyyappan's history and contributions in his field and to others. In the circumstances of this case, a sentence of time served is just and appropriate.

Dated: New York, New York
June 2, 2021

Respectfully submitted,

By: 
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